

Purchasing Receipts

PO No	Supplier	Line Item No	Ref. No	Rel. Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO041321	MEC002-VU	1	1	Net 30	MT-4140QT-R2.250	AISI 4140 Quenched & Tempered Steel Round Bar 2.250" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT				6	10/19/2018	6	S122005	Stock	10/18/2018	\$ 18.57 / ft		8	\$11.42	Metaux Castle	
		2			MT-4140QT-R3.000	AISI 4140 Quenched & Tempered Steel Round Bar 3.000" Dia.				4		4	S122006	Stock	10/18/2018	\$ 50.92 / ft		8	\$203.68	Metaux Castle	
		3			MT-4140QT-R3.250	AISI 4140 Quenched & Tempered Steel Round Bar 3.250" Dia.				4		4	S122007	Stock	10/18/2018	\$ 52.18 / ft		8	\$208.72	Metaux Castle	

Print

Plex 10/26/2018 4:19 PM *dart Tonlis Andrew*



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041321

Supplier:	MEC002-VU Metaux Castle P.O. Box 4090 Stn A Toronto ON M5W 0E9 Canada	PO No:	PO041321
		PO Date:	10/11/18
		Due Date:	10/19/18
		Purchase Order Revision:	
		Revision Date:	
		Ship-To Contact:	Phone:
Ship To:	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	Via:	Ground
		Pymt Terms:	Net 30
		Freight Terms:	
		Special Comments:	

E-MAILED
OCT 11 2018

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M	MT-4140QT-R2.250		AISI 4140 Quenched & Tempered Steel Round Bar 2.250" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	-	10/19/18	6 ft	6 ft	0 ft	\$18.57/ft	\$111.42
2	M	MT-4140QT-R3.000		AISI 4140 Quenched & Tempered Steel Round Bar 3.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed	-	10/19/18	4 ft	4 ft	0 ft	\$50.92/ft	\$203.68



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
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PURCHASE ORDER PO041321

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3 <i>A1</i>		MT-4140QT-R3.250		AISI 4140 Quenched & Tempered Steel Round Bar 3.250" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed -		10/19/18	4 ft	0 ft <i>/4ft</i>	4 ft <i>A 18/10/26</i>	\$52.18/ft	\$208.72
4 <i>A1</i>		MT-4140QT-R5.000		AISI 4140 Quenched & Tempered Steel Round Bar 5.000" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT	Firmed -		10/19/18	4 ft <i>/ 4ft</i>	0 ft <i>A 18/10/26</i>	4 ft	\$110.05/ft	\$440.20



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041321

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5		M7075T6S0.375X6.000		7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075- T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 OR MATERIAL: 7075- T6/T62/T65/ ALCLAD ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A- 250/13 OR AMS 4048 / 4049 OR ASTM B209	Firmed	-	11/5/18	24 ft	0 ft	24 ft	\$24.25/ft	\$582.00

Grand Total: \$1,546.02

Order Notes

- Procurement Quality Clauses
- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/11/18 11:46 AM dart.lavoie.chantal

Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Wednesday, October 03, 2018 9:06 AM
To: Chantal Lavoie
Subject: RE: quote

Good Morning Chantal,

price and delivery on mat'l.

24.23

4140QT round bar 2.250" x 6 ft \$ 18.57 Ft 3 days 111.42. 145.39
4140QT round bar 3" x 4 ft \$ 50.92 Ft 3 days 152.72 = 64.41 cu.
4140QT round bar 3.250" x 4 ft \$ 52.18 Ft 3 days 208.72 68.08
4140QT round bar 5" x 4 ft \$ 110.05 Ft 3 days 143.60

~~17.4 H900 round bar 2.250" x 12 ft offer cond. A \$ 46.40 Ft 3 days~~

~~17.4 H1150 round bar 15" x 12 ft Is this 1.50" dia?~~

~~304 bar 0.500" x 2.5" x 12 ft Must regret, not available~~

~~6061t6 bar 1.250" x 1.250" x 12 ft \$ 8.18 Ft 8-9 days~~
~~6061t6 bar 1" x 12" x 12 ft \$ 38.62 Ft 8-9 days~~

7075-t6 plate 0.375" x 6" x 24 ft \$ 24.25 Ft 2-3 weeks

31.6437 \$ Cu.

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370

Customized Supply Chain Solutions for Your Metal Needs

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PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Shipment Details		Final Destination Branch - TOR					
Date Shipped	F.O.B. ORIGIN	Freight Terms	Carrier	BOL No			
17-OCT-18	Prepaid	MANITOULIN	3730261-2				
Order No	Line No	Item No	Description				
5287876	1	13783.MO	2.2500.RD.4140.ALLOY.HR.Q & T.SR/SF.A193-B7.216.0000-288.0000 CUT TO 72 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
41321		1.00 PCS	6.0000 FT				
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS						
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122289420	NUCOR STEEL NEBRASKA	H9921 10 0 8 9 1 1 1 9 AT	1				82.6947

899L499C

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.
Reviewed by Authorized Castle Metals Representative:
OCT 17 2018 Date: Name: SUE KALOUS 

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327												Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523											
MANUFACTURER (MILL) NUCOR STEEL NEBRASKA						CUST. ORDER NO.																	
IC	HEAT NO.	MECHANICAL ID				ORDER NO.				SHIP QUANTITY	DATE												
13783	100891119	H9921				11807659				7860	10-JUL-18												
DESCRIPTION OF MATERIAL																							
2.2500.RD 4140 ALLOY.HR.Q & T.SR/SF.A193-B7.216.0000-288.0000																							
CHEMICAL ANALYSIS %																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.94	.012	.023	.26	.14	.06	.97	.18	.030														
JOMINY HARDENABILITY Rc																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
57	57	57	57	57	57	55	54	53	50	49	47	46	46	47	46	46	43	43	41	41	39		
METALLURGICAL																							
MACROETCH					NAFTA YES	GRAIN SIZE 5																	
S: 1 R: 1 C: 3																							
CONTINUOUS CAST YES	REDUCTION RATIO II			FROM IC 14186																			
COUNTRY OF MANUFACTURE United States	COUNTRY OF MELT US																						
HEAT TREATMENT																							
AUSTENITIZE MINUTES	AUSTENITIZE TEMP °F	TEMPER MINUTES	TEMPER TEMP °F	WATER QUENCH TEMP	80																		
46	1550	54	1220																				
HARDNESS						MECHANICAL																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	300	MID	HBW	299	MID	139528	120547	21.2	61													
SURF	HBW	307				MID	133884	113894	22.4	61.2													
CONFORMANT TO SPECIFICATIONS																							
ASTM A29-16 ASTM A193-17 GR B7 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC ASTM A962-17 ASME_SA193_17_ED_B7 EN 10204:2004 TYPE 3.1 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17																							
T=136932 Y=117852 E=21.2 RA=61 MID																							

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.

H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

NAME: JAN L. CARUSO
 TITLE: MANAGER OF TECHNICAL SERVICES

Jan L. Caruso
 SIGNATURE:

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1-4140QT-R2.250
 DATE: 18/10/18

PO / BATCH NO.: P0041321/512205

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 614
 QUANTITY INSPECTED: 614
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2250"
 THICKNESS RECEIVED: 2.250"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>ASTM A29 (Eng Approved)</i>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>HT. 100891119</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>MLee</u>
DATE: <u>18/10/18</u>	DATE: <u>Oct 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327												Customer: A. M. Castle & Co. 1420 Kensington Rd Suite 220 Oak Brook, IL 60021 523									
MANUFACTURER REPUBLIC STEEL						CUST. ORDER NO.															
IC	HEAT NO.	EL				ORDER NO.			SHIP QUAN	FRTY	DATE										
1907	(S297776)		MECHANICAL ID	H1024		11862263			8125		27-AUG-18										
DESCRIPTION OF MATERIAL																					
3.0000.RD 4140 ALLOY, HR.Q & T.SR/SF.A193-B7. 20-288.0000																					
CHEMICAL ANALYSIS %																					
C	MN	P	S	SI	CU	NI	CR	MO	AL												
.41	.91	.012	.031	.25	.13	.16	.96	.20	.026												
JOMINY HARDENABILITY Rc																					
1 58	2 57	3 57	4 57	5 56	6 56	7 55	8 54	9 53	10 51	11 48	12 47	13 45	14 43	15 41	16 38	18 37	20 32	22 30	24 28	26 30	28 32
METALLURGICAL																					
MACROETCH S: I R: I C: I			NAFTA YES	GRAIN SIZE 5																	
CONTINUOUS CAST YES	REDUCTION RATIO 18.4		FROM IC 14199																		
COUNTRY OF MANUFACTURE United States	COUNTRY OF MELT US																				
HEAT TREATMENT																					
AUSTENITIZE MINUTES 100	AUSTENITIZE TEMP °F 1550	TEMPER MINUTES 68	TEMPER TEMP °F 1210	WATER QUENCH TEMP 80																	
HARDNESS						MECHANICAL															
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %											
SURF	HBW	296	MID	HBW	290	MID	139538	114014	21	61											
SURF	HBW	298				MID	137428	117214	20.4	61.4											
MID	HBW	289																			
CONFORMANT TO SPECIFICATIONS																					
ASTM A193-17 GR B7 ASTM A322-13 <u>ASTM A29-16</u> ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																					

3) T:144625 Y:123794 E:19.5 RA:58.2

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.	RUSO NAME: JAN L. CALF TECHNICAL SERVICES TITLE: MANAGER OF
H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.	 SIGNATURE: <i>Jan L. Calf</i>
THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.	



PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Ship From: A. M. CASTLE & CO. 2150 ARGENTINA ROAD MISSISSAUGA, ON L5N 2K7 CAN	Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 18-OCT-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier UPS
Shipment Details		Final Destination Branch - TOR	
Order No 5287876	Line No 2	Item No 1907.MO	Description 3.0000.RD.4140.ALLOY.HR.Q & T.SR, CUT TO 48 IN (+ .1250/- .0000 IN) - ESF.A193-B7.264.0000-288.0000 SPECIFICATIONS: ASTM A304 3AND SAW CUTTING
Purchase Order No 41321	Part Number		Ordered Qty 1.00 PCS
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS		
Delivery No. 122291825	Mill/Source	Heat Number 8297776	Mech Id H1024
			Width (IN)
			Length (IN)
			Unped Qty(LBS) 98.2270

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

Reviewed by Authorized Castle Metals Representative:

SUE KALOUS
Date: OCT 18 2018
Name:

Date Printed: 18-OCT-2018 03:00:28 PM

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R3.00
 DATE: 18/10/26

PO / BATCH NO.: P0041221/S122026

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 44
 QUANTITY INSPECTED: 44
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.00"
 THICKNESS RECEIVED: 3.00"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>N</u>	
CORRECT FINISH	Y <u>N</u>	
CORROSION	Y <u>N</u>	
CORRECT GRAIN DIRECTION	Y <u>N</u>	
CORRECT MATERIAL PER M-DRAWING	Y <u>N</u>	<i>ASME A29 (ENG Approved)</i>
CORRECT THICKNESS	Y <u>N</u>	
PHOTO REQUIRED	Y <u>N</u>	
CORRECT REF # TO LINK CERT	Y <u>N</u>	<i>HT: 8297776</i>
CORRECT MATERIAL IDENTIFICATION	Y <u>N</u>	
CORRECT M# ON THE MATERIAL	Y <u>N</u>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>N</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u> DATE: <u>18/10/26</u>	SIGNED OFF BY: <u>M Lee</u> DATE: <u>Oct 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Ship From:	Sold To:	Ship To:	Deliver To:				
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN				
Date Shipped	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN	BOL No 3730261-2			
17-OCT-18							
Shipment Details							
Final Destination Branch - TOR							
Order No	Line No	Item No	Description	Invoice Qty			
5287876	3	33591.MO	3.2500.RD.4140.ALLOY.HR.Q & T.SRISF.A193-B7 MS 216 0000-288.0000 CUT TO 48 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304	4.0000 FT			
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
41321		1.00 PCS					
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS						
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
122289220	TIMKENSTEEL CORPORATION	HW0336A	H9934	1			115.0748

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size or material cut by the customer ~~shall~~ not be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Oct 17 2018 Date:

SUE KALOJUS Name:

Date Printed: 17-OCT-2018 02:53:23 PM



CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523													
MANUFACTURER (MILL) TIMKENSTEEL CORPORATION					CUST. ORDER NO.																		
IC 33591	HEAT NO. W0336	MECHANICAL ID H9934	ORDER NO. 11807630					SHIP QUANTITY 7815			DATE 16-JUL-18												
DESCRIPTION OF MATERIAL																							
3.2500.RD.4140 ALLOY.HR.Q & T.SR/SF.A193-B7.MS.216.0000-288.0000																							
CHEMICAL ANALYSIS %																							
C .40	MN .96	P .008	S .020	SI .22	CU .22	NI .12	CR .99	MO .21	AL .030														
JOMINY HARDENABILITY Rc																							
1 57	2 56	3 56	4 55	5 53	6 55	7 53	8 54	9 54	10 53	11 51	12 47	13 45	14 43	15 41	16 38	18 38	20 38	22 38	24 38	26 38	28 38	30 38	32 36
METALLURGICAL																							
MACROETCH S: 2 R: 2 C: 3				NAFTA YES	GRAIN SIZE 5																		
	REDUCTION RATIO 94.5	INGOT CAST YES	FROM IC 14808																				
COUNTRY OF MANUFACTURE United States	COUNTRY OF MELT US																						
HEAT TREATMENT																							
AUSTENITIZE MINUTES 7	AUSTENITIZE TEMP °F 1550	TEMPER MINUTES 58	TEMPER TEMP °F 1225	WATER QUENCH TEMP 80																			
HARDNESS						MECHANICAL																	
Location SURF SURF MID	Type HBW HBW HBW	307 312 298	Location MID	Type HBW	316	Location MID MID	Tensile PSI 138277 125700	Yield .2% PSI 117332 103000	ELONG 2" % 21.2 20	R.A. % 62.8 65.1													
CONFORMANT TO SPECIFICATIONS																							
ASTM A193-17 GR B7 ASTM A322-13 <u>ASTM A29-16</u> ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																							

3) T:130300 Y:108700 E:21 RA:65.2 4) T:140904 Y:122006 E:20.4 RA:61.1

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.

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THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

NAME: JAN L. CARUSO
TITLE: MANAGER OF TECHNICAL SERVICES

Jan L. Caruso
SIGNATURE:

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-3.250
 DATE: 18/10/26

PO / BATCH NO.: P0041321/S12207

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 44
 QUANTITY INSPECTED: 44
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.250"
 THICKNESS RECEIVED: 3.250"
 SHEET SIZE ORDERED: -
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	<u>ASTM A29 (ENG Approved)</u>
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	<u>HT: W0336</u>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>M Lee</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 28/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Ship From:	Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA

Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No
17-OCT-18	ORIGIN	Prepaid	MANITOULIN	3730261-2

Shipment Details		Final Destination Branch - TOR		
Order No	Line No	Item No	Description	

5287876	4	41417.MO	5.0000.RD.4140.ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-.288.0000 CUT TO 48 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304	
Purchase Order No	Part Number	Ordered Qty	Invoice Qty	

41321		1.00 PCS	4.0000 FT
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavvie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS		
Delivery No.	Mill/Source	Heat Number	Width (IN)

122289421	TIMKENSTEEL CORPORATION	Q6876 W2036	Length (IN)	Shipped Qty(LBS)
			272.8513	

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

0CT 17 2018 Date: **SURE KALOUS**

Date Printed: 17-OCT-2018 02:53:23 PM



CERTIFICATE OF MATERIAL TEST REPORTS

H-A Industries A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										Customer: A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523												
MANUFACTURER (MILL) TIMKENSTEEL CORPORATION					CUST. ORDER NO.																	
IC	HEAT NO.	MECHANICAL ID	ORDER NO.					SHIP QUANTITY			DATE											
41417	W2036	Q6876	11862152					8200			29-AUG-18											
DESCRIPTION OF MATERIAL																						
5.0000.RD4140 ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-288.0000																						
CHEMICAL ANALYSIS %																						
C	MN	P	S	SI	CU	NI	CR	MO	AL													
.41	.98	.009	.031	.24	.26	.16	.95	.21	.037													
JOMINY HARDENABILITY Rc																						
1 59	2 58	3 57	4 56	5 56	6 55	7 55	8 55	9 55	10 53	11 51	12 49	13 46	14 44	15 41	16 40	18 38	20 32	22 30	24 30	26 32	28 32	30 32
METALLURGICAL																						
MACROETCH S: 2 R: 2 C: 3				NAFTA YES	GRAIN SIZE 5																	
CONTINUOUS CAST YES	REDUCTION RATIO 22				FROM IC 18675																	
COUNTRY OF MANUFACTURE United States	COUNTRY OF MELT US																					
HEAT TREATMENT																						
AUSTENITIZE MINUTES 63	AUSTENITIZE TEMP °F 1675	TEMPER MINUTES 68	TEMPER TEMP °F 1320	WATER QUENCH TEMP 95																		
HARDNESS						MECHANICAL																
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	Elong 2" %	R.A. %												
SURF	HBW	301	MID	HBW	289	MID	126345	99877	20.4	56.4												
CONFORMANT TO SPECIFICATIONS																						
ASTM A29-16 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC UNS# G41400																						

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NAME: JAN L. CARUSO
 TITLE: MANAGER OF TECHNICAL SERVICES

Jan L. Caruso
 SIGNATURE:

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-41140QT-R5,000
 DATE: 18/10/18

PO / BATCH NO.: P0041321/S122008

MATERIAL CERT REC'D: Y
 QUANTITY RECEIVED: 4ft
 QUANTITY INSPECTED: 4ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 5.000"
 THICKNESS RECEIVED: 5.000"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
	Y	N	
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	<i>ASTM A27 (EN6 approved)</i>
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	<i>HT-W2026</i>
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGHOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>MLee</u>
DATE: <u>18/10/18</u>	DATE: <u>OCT 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in